

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

- 1 1. (Original) An apparatus for use with a subsea well, comprising:
2 a carrier line spool having a carrier line that is adapted to be positioned
3 underwater; and
4 a stack in a structure separate from the carrier line spool, the stack adapted to
5 operatively couple to subsea wellhead equipment, and the carrier line attached to the stack.
- 1 2. (Original) The apparatus of claim 1, wherein the carrier line spool comprises a
2 coiled tubing spool.
- 1 3. (Original) The apparatus of claim 1, wherein the carrier line spool is selected
2 from the group consisting of a wireline spool and slickline spool.
- 1 4. (Original) The apparatus of claim 1, wherein the carrier line spool is adapted to
2 be positioned on the sea floor separate from the stack.
- 1 5. (Original) The apparatus of claim 1, wherein the carrier line spool comprises a
2 coiled tubing spool, the apparatus further comprising an injector head adapted to drive coiled
3 tubing from the coiled tubing spool.
- 1 6. (Original) The apparatus of claim 5, wherein the stack comprises the injector
2 head.
- 1 7. (Original) The apparatus of claim 6, wherein the stack further comprises a
2 gooseneck to provide support for coiled tubing reeled from the coiled tubing spool.
- 1 8. (Original) The apparatus of claim 5, further comprising at least one buoyancy
2 tank attached to an assembly containing the injector head.

1 9. (Original) The apparatus of claim 1, further comprising a carousel containing a
2 plurality of intervention tools.

1 10. (Original) The apparatus of claim 9, wherein the carousel is rotatable underwater
2 to enable switching of tools for connection to the carrier line.

1 11. (Original) The apparatus of claim 1, wherein the stack contains an emergency
2 disconnect package.

1 12. (Original) The apparatus of claim 11, further comprising a connector connected
2 between the emergency disconnect package and the subsea wellhead equipment.

1 13. – 14. (Cancelled)

1 15. (Currently Amended) An apparatus for use with a subsea well, comprising:
2 a carrier line spool having a carrier line that is adapted to be positioned
3 underwater and to be operatively coupled to intervention equipment attached to subsea wellhead
4 equipment; and
5 an underwater marine unit adapted to operatively couple the carrier line to the
6 intervention equipment attached to the subsea wellhead equipment in response to wireless
7 signals;
8 ~~wherein the underwater marine unit comprises an interface to receive wireless~~
9 ~~signals.~~

1 16. (Original) The apparatus of claim 15, wherein the wireless signals comprise
2 acoustic wave signals.

1 17. (Currently Amended) A method of intervention with a subsea well, comprising:
2 positioning a carrier line spool underwater;
3 attaching a stack to subsea wellhead equipment, the stack in a structure separately
4 located from the carrier line spool; and
5 deploying coupling a carrier line of the carrier line spool ~~[[to]]~~ into the stack.

1 18. (Currently Amended) The method of claim 17, wherein deploying coupling the
2 carrier line comprises deploying coupling the carrier line ~~[[to]]~~ through an injector head in the
3 stack.

1 19. (Currently Amended) The method of claim 18, wherein deploying coupling the
2 carrier line comprises deploying coupling the carrier line through a gooseneck to the injector
3 head.

1 20. (Original) The method of claim 17, further comprising lowering the carrier line
2 into the subsea well to perform an intervention operation.

1 21. (Original) The method of claim 20, further comprising raising the carrier line
2 after the intervention operation is completed and switching tools connected to the carrier line.

1 22. (Original) The method of claim 21, wherein switching tools comprises actuating
2 a carousel system having chambers containing a plurality of tools.

1 23. (Original) The method of claim 22, further comprising engaging the carrier line
2 with another tool after actuating the carousel system.

1 24. (Currently Amended) ~~The method of claim 17, further comprising~~ A method of
2 intervention with a subsea well, comprising:
3 positioning a carrier line spool underwater;
4 attaching a stack to subsea wellhead equipment, the stack in a structure separately
5 located from the carrier line spool;
6 coupling a carrier line of the carrier line spool to the stack; and
7 attaching intervention equipment separate from the carrier line to the subsea
8 wellhead equipment.

1 25. (Currently Amended) The method of claim 17, further comprising using an
2 underwater marine unit to deploy couple the carrier line into the stack ~~to the subsea wellhead~~
3 ~~equipment.~~

1 26. (Original) The method of claim 17, further comprising lowering, using an
2 underwater marine unit, the carrier line spool to a position on a sea floor.

1 27. (Original) The method of claim 26, further comprising attaching buoyancy tanks
2 to the carrier line spool to enable the underwater marine unit to carry the carrier line spool
3 underwater.

1 28. (Cancelled)

1 29. (Currently Amended) A method of intervention with a subsea well, comprising:
2 positioning a carrier line spool underwater;
3 ~~coupling a carrier line of the carrier line spool to subsea wellhead equipment;~~
4 using an underwater marine unit to couple a carrier line of the carrier line spool to
5 ~~the subsea wellhead~~ intervention equipment; and
6 communicating commands to the underwater marine unit using wireless signals to
7 control the coupling of the carrier line to the subsea intervention equipment.

1 30. (Original) A subsea intervention method for use with subsea wellhead equipment,
2 comprising:
3 assembling modules containing intervention equipment; and
4 connecting, using an underwater marine unit, the assembled intervention
5 equipment to the subsea wellhead equipment; and
6 attaching one or more buoyancy tanks to at least one of the modules.

1 31. (Original) The method of claim 30, further comprising attaching one or more
2 buoyancy tanks to the assembled intervention equipment.

1 32. (Original) The method of claim 30, wherein assembling the modules comprises
2 assembling a carrier line spool as part of the intervention equipment.

1 33. (Currently Amended) The apparatus of claim 1, further comprising an underwater
2 marine unit to attach intervention equipment separate from the carrier line to the subsea wellhead
3 equipment, the intervention equipment comprising the stack.

1 34. (Currently Amended) The apparatus of claim ~~[[1]]~~ 33, wherein ~~the intervention~~
2 ~~equipment includes the stack~~ comprises a frame.

1 35. (New) The method of claim 24, wherein the intervention equipment includes the
2 stack.